

09/17/377

=> d his

(FILE 'HOME' ENTERED AT 11:40:08 ON 03 JUN 1999)

FILE 'CA' ENTERED AT 11:40:19 ON 03 JUN 1999

E BOHLEN DAVID SCOTT/IN

L1 3 S E3
E JENSEN MICHAEL CHRIS/IN
L2 5 S E3
E CAPECI SCOTT WILLIAM/IN
L3 21 S E2-E3
L4 24 S HIGH(W) SPEED(P) MODERATE(W) SPEED
L5 642 S (SURFACTANT PASTE# OR SURFACTANT# OR LAS OR ABS OR
HLAS) (P) (E
L6 0 S L4 AND L5
L7 25457 S AGGLOMERAT?
L8 2 S L5 AND L7
L9 1262 S (BULK OR APPARENT) (W) DENSITY
L10 0 S L5 AND L9
L11 71293 S DETERGENT#
L12 24 S L5 AND L11
L13 0 S REGULAT?(P) TEMPERATURE(P) (SURFACTANT PASTE# OR SURFACTANT#
OR
L14 3 S (MAINTAIN### OR ADJUST? OR
REGULAT####) (P) TEMPERATURE(P) (SURF

1 3 "BOHLEN DAVID SCOTT"/IN

=> d 1-3 11 ti

L1 ANSWER 1 OF 3 CA COPYRIGHT 1999 ACS
TI Processing a crystalline builder having improved performance for detergents

L1 ANSWER 2 OF 3 CA COPYRIGHT 1999 ACS
TI High density detergent-making process using a high active surfactant paste
having improved stability

L1 ANSWER 3 OF 3 CA COPYRIGHT 1999 ACS
TI Processes for making a crystalline builder material having improved performance

=> d 2 11

L1 ANSWER 2 OF 3 CA COPYRIGHT 1999 ACS
AN 127:347950 CA
TI High density detergent-making process using a high active surfactant paste
having improved stability

IN **Bohlen, David Scott; Jensen, Michael Chris; Hollihan, Lester John**

PA Procter and Gamble Company, USA; Bohlen, David Scott; Jensen, Michael Chris; Hollihan, Lester John

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9739100	A1	19971023	WO 97-US6484	19970416
	W: BR, CA, CN, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
SE	EP 898614	A1	19990303	EP 97-921254	19970416
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,				
FI	PRAI US 96-15685		19960417		
	WO 97-US6484		19970416		

L2 5 "JENSEN MICHAEL CHRIS"/IN

=> d 1-5 12 ti

L2 ANSWER 1 OF 5 CA COPYRIGHT 1999 ACS

TI Processes for making a granular detergent composition containing
mid-chain
branched surfactants

L2 ANSWER 2 OF 5 CA COPYRIGHT 1999 ACS

TI Detergent-making process using a high active surfactant paste containing
mid-chain branched surfactants

L2 ANSWER 3 OF 5 CA COPYRIGHT 1999 ACS

TI Process for making a high density granular detergent composition
containing mid-chain branched surfactants

L2 ANSWER 4 OF 5 CA COPYRIGHT 1999 ACS

TI High density detergent-making process using a high active surfactant
paste
having improved stability

L2 ANSWER 5 OF 5 CA COPYRIGHT 1999 ACS

TI Manufacturing sulfates of longer chain branched alkanols and/or
alkoxylated alkanols

L3 21 ("CAPECI SCOTT W"/IN OR "CAPECI SCOTT WILLIAM"/IN)

=> d 1-21 13 ti

L3 ANSWER 1 OF 21 CA COPYRIGHT 1999 ACS

TI Manufacture of high-surfactant content detergent agglomerates by multi-stage surfactant paste injection

L3 ANSWER 2 OF 21 CA COPYRIGHT 1999 ACS

TI Making a selected inexpensive crystalline calcium carbonate builder for use in detergent compositions

L3 ANSWER 3 OF 21 CA COPYRIGHT 1999 ACS

TI Carrier-supported acyclic imide bleach activators, their manufacture and use in granular detergent compositions

L3 ANSWER 4 OF 21 CA COPYRIGHT 1999 ACS

TI Processing a crystalline builder having improved performance for detergents

L3 ANSWER 5 OF 21 CA COPYRIGHT 1999 ACS

TI Continuous process for making high-density detergents

L3 ANSWER 6 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making a granular, high-density detergent composition containing a crystalline builder

L3 ANSWER 7 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making a high density detergent composition by controlling agglomeration within a dispersion index

L3 ANSWER 8 OF 21 CA COPYRIGHT 1999 ACS

TI manufacture of high density detergent compositions from non-aqueous binder-containing surfactant pastes

L3 ANSWER 9 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making a high density detergent composition by controlling agglomeration within a Dispersion Index

L3 ANSWER 10 OF 21 CA COPYRIGHT 1999 ACS

TI Processes for making a compact granular detergent composition containing a crystalline builder material

L3 ANSWER 11 OF 21 CA COPYRIGHT 1999 ACS

TI Processes for making a crystalline builder material having improved performance

L3 ANSWER 12 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making high density detergent composition using conditioned air

L3 ANSWER 13 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making a high density detergent composition which includes selected recycle streams

L3 ANSWER 14 OF 21 CA COPYRIGHT 1999 ACS

TI Agglomeration process for making a detergent composition utilizing

existing spray drying towers for conditioning detergent agglomerates

L3 ANSWER 15 OF 21 CA COPYRIGHT 1999 ACS

TI Continuous process for making a high density detergent composition in a single mixer/densifier with selected recycle streams for improved agglomerate properties

L3 ANSWER 16 OF 21 CA COPYRIGHT 1999 ACS

TI High density detergent agglomerates using an anhydrous powder additive

L3 ANSWER 17 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making a high-density detergent composition

L3 ANSWER 18 OF 21 CA COPYRIGHT 1999 ACS

TI Preparation of detergent composition having high bulk density and good solubility by agglomeration of anionic surfactants

L3 ANSWER 19 OF 21 CA COPYRIGHT 1999 ACS

TI Continuous preparation of high-density detergent granules using a mixer-densifier

L3 ANSWER 20 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making high density detergent agglomerates

L3 ANSWER 21 OF 21 CA COPYRIGHT 1999 ACS

TI Process for making high density detergent agglomerates using an anhydrous powder additive

=> d 1-2 18

L8 ANSWER 1 OF 2 CA COPYRIGHT 1999 ACS
AN 124:205666 CA
TI **Agglomerated** detergent composition containing high levels of anionic **surfactants** and potassium salt for improved solubility in cold **temperature** laundering sol
IN Swift, Ronald Allen; Pancheri, Eugene Joseph
PA Procter and Gamble Co., USA
SO Brit. UK Pat. Appl., 20 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 2289687	A1	19951129	GB 95-7438	19950410
PRAI US 94-226595		19940411		
OS MARPAT 124:205666				

L8 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS
AN 111:156474 CA
TI Critical **surfactant** concentration in the interaction between nonionic **surfactants** and polymeric acids. Effects of **temperature**, pH and salts
AU Saito, Shuji
CS Momotani Juntenkan Ltd., Osaka, 552, Japan
SO JAOCS, J. Am. Oil Chem. Soc. (1989), 66(7), 987-93
CODEN: JJASDH
DT Journal
LA English

=> d 1-2 18 ab

L8 ANSWER 1 OF 2 CA COPYRIGHT 1999 ACS
AB A detergent compn. as **agglomerates** and substantially free of phosphates, contains 1-50% a detergents surfactant system including by wt. of the surfactant system, .gtoreq.30% a sulfated surfactant selected from alkyl sulfates, alkyl ethoxy sulfates, secondary alkyl sulfates and mixts., 2-25% K salt selected from the group consisting of K carbonate, KCl, K sulfate and mixts., and .gtoreq..apprx.1% a detergency builder to enhance cleaning. The anionic surfactants in the detergent compn. have significantly improved dissoln. in aq. laundering solns., esp. those kept at cold temps., i.e. 5-30.degree.. Detergent contg. alkyl sulfates, sodium citrate builder, and KCO₃, as well as other detergent additives, dissolved in 10.degree. water had anionic surfactant dissoln. 77%, vs. 58% using NaCO₃ instead of KCO₃.

L8 ANSWER 2 OF 2 CA COPYRIGHT 1999 ACS
AB Crit. surfactant concns. at which the binding of nonionic surfactants to poly(acrylic acid, or complex formation, abruptly occurred in aq. soln. were lower than the crit. micelle concn. and were temp. independent. The complex was pptd. by pH lowering or salt addn. At low pH, a pptn. limit surfactant concn. (PLC) existed, below which no pptn. of the complex took place, and the PLC coincided with the crit. surfactant concn. mentioned

above. In this case the PLC did not change with temp. either. In pptn. caused by AlCl₃ addn., the PLC was a little higher than that at low pH, because Al ions induced not only shrinking and agglomeration of the complex but at the same time blocked the sites on the polymeric acid for hydrogen bonding with the surfactant. With NaCl or CaCl₂ addn. no

PLC

was found, because in both cases the salting-out effect dominated.

=> d 1-24 112 ti

- L12 ANSWER 1 OF 24 CA COPYRIGHT 1999 ACS
TI Clear, homogeneous and **temperature**-stable liquid laundry detergent product containing blend of anionic, nonionic and amphoteric **surfactants**
- L12 ANSWER 2 OF 24 CA COPYRIGHT 1999 ACS
TI Clear, homogeneous and **temperature**-stable liquid laundry detergent product containing blend of anionic and nonionic **surfactants**
- L12 ANSWER 3 OF 24 CA COPYRIGHT 1999 ACS
TI Granular **detergent** composition containing an optimum **surfactant** system for cold **temperature** laundering
- L12 ANSWER 4 OF 24 CA COPYRIGHT 1999 ACS
TI Low-**temperature**-stable liquid laundry **detergents** containing fatty acid salts, nonionic **surfactants**, and sodium carbonate
- L12 ANSWER 5 OF 24 CA COPYRIGHT 1999 ACS
TI **Surfactant** powder with good low-**temperature** solubility
- L12 ANSWER 6 OF 24 CA COPYRIGHT 1999 ACS
TI Liquid compositions comprising stability-enhancing **surfactants** and a method of enhancing low **temperature** stability of them
- L12 ANSWER 7 OF 24 CA COPYRIGHT 1999 ACS
TI High-concentration slurries of nonionic **surfactants** showing low viscosity at low **temperature**
- L12 ANSWER 8 OF 24 CA COPYRIGHT 1999 ACS
TI Skin-compatible **detergent** compositions containing glycine derivatives and sugar-derived **surfactants** with improved rinsing property and low-**temperature** storability
- L12 ANSWER 9 OF 24 CA COPYRIGHT 1999 ACS
TI Agglomerated **detergent** composition containing high levels of anionic **surfactants** and potassium salt for improved solubility in cold **temperature** laundering sol
- L12 ANSWER 10 OF 24 CA COPYRIGHT 1999 ACS
TI Nonionic **surfactants** with improved fluidity at low **temperature**
- L12 ANSWER 11 OF 24 CA COPYRIGHT 1999 ACS
TI Manufacture of **detergent** compositions containing N-acylamino acid-based anionic **surfactants** with good storability at low **temperature**
- L12 ANSWER 12 OF 24 CA COPYRIGHT 1999 ACS
TI Sulfosuccinate ester-based mild anionic **surfactant** compositions with good low-**temperature** storability and use feel
- L12 ANSWER 13 OF 24 CA COPYRIGHT 1999 ACS
TI Effects of surfactants and related compounds on the functions of

biological membranes and their application to toxicity assessment

L12 ANSWER 14 OF 24 CA COPYRIGHT 1999 ACS

TI Manufacture of nonaqueous **surfactant** concentrates with low viscosity at room **temperature**

L12 ANSWER 15 OF 24 CA COPYRIGHT 1999 ACS

TI Experimental studies of turbidity **temperature** (Tt) of non-ionic **surfactant** - MGI57 in the presence of uric acid

L12 ANSWER 16 OF 24 CA COPYRIGHT 1999 ACS

TI Mixed active systems (**LAS**-nonionic-soap). Detergency performance at low **temperature**

L12 ANSWER 17 OF 24 CA COPYRIGHT 1999 ACS

TI Biodegradation of some **surfactants** in river water with relation to chemical structure and water **temperature**

L12 ANSWER 18 OF 24 CA COPYRIGHT 1999 ACS

TI Evaluation of textile detergent efficiency of microemulsions in systems of water, nonionic **surfactant** and hydrocarbon at low **temperature**

L12 ANSWER 19 OF 24 CA COPYRIGHT 1999 ACS

TI Detergency of water/nonionic **surfactant**/hydrocarbon systems at low **temperature**; II: effect of different types of "builders"

L12 ANSWER 20 OF 24 CA COPYRIGHT 1999 ACS

TI Effects of **temperature** on interaction of anionic **surfactant**/calcium ion, and sequestering builder/calcium ion

L12 ANSWER 21 OF 24 CA COPYRIGHT 1999 ACS

TI Photochemical reactivity in organized assemblies. 27. Hydrophobic and entropic factors in the solubilization of ionic substrates in micelles: effects of **temperature**, **surfactant** chain length, and added **surfactants**

L12 ANSWER 22 OF 24 CA COPYRIGHT 1999 ACS

TI Study of the effectiveness of **surfactants** in washing textiles in cold water and the development of an agent for low-**temperature** washing

L12 ANSWER 23 OF 24 CA COPYRIGHT 1999 ACS

TI Effect of **temperature** and humidity on the effectiveness of different **surfactants**

L12 ANSWER 24 OF 24 CA COPYRIGHT 1999 ACS

TI Determination of the solubility of ionic **surfactants** as a function of the **temperature**. Application to sodium n-dodecyl p-benzenesulfonate

L14 3 (MAINTAIN### OR ADJUST? OR
REGULAT###) (P) TEMPERATURE (P) (SURFACT
ANT PASTE# OR SURFACTANT# OR SURFACE ACTIVE OR PASTE#)

=> d 1-3 114 ti

L14 ANSWER 1 OF 3 CA COPYRIGHT 1999 ACS
TI Accumulation of vitamin A in liver of trout **maintained** on
pelleted and **paste** foods with vitamin supplements under low
temperature conditions

L14 ANSWER 2 OF 3 CA COPYRIGHT 1999 ACS
TI Treating high-amylase corn meal or starch to improve gelatinization

L14 ANSWER 3 OF 3 CA COPYRIGHT 1999 ACS
TI Orientation of intermediates in the bleaching of shear-oriented rhodopsin

09/17/377

=> d his

(FILE 'USPAT' ENTERED AT 12:05:07 ON 03 JUN 1999)
E BOHLEN, DAVID SCOTT/IN
L1 2 S E2-E3
E JENSEN, MICHAEL CHRIS/IN
L2 1 S E2
E CAPECI, SCOTT WILLIAM/IN
L3 12 S E2-E3
L4 3 S SURFACTANT (W) PASTE# (P) ELEVATED (W) TEMPERATURE
L5 10113 S (SURFACTANT# OR SURFACE ACTIVE OR PASTE OR LAS OR ABS OR
HL
L6 254 S 510/444/CCLST
L7 54 S L5 AND L6
L8 518 S HIGH(W) SPEED AND MODERATE (W) SPEED
L9 13 S L7 AND L8

=> d 1-12 13

1. 5,733,865, Mar. 31, 1998, Processes for making a crystalline builder having improved performance; Eugene Joseph Pancheri, et al., 510/531; 423/155, 179, 637, 641; 510/457, 509 [IMAGE AVAILABLE]
2. 5,733,862, Mar. 31, 1998, Process for making a high density detergent composition from a surfactant paste containing a non-aqueous binder; **Scott William Capeci**, et al., 510/444; 23/313R; 264/117, 140; 510/360, 441, 507, 509 [IMAGE AVAILABLE]
3. 5,707,959, Jan. 13, 1998, Processes for making a granular detergent composition containing a crystalline builder; Eugene Joseph Pancheri, et al., 510/444, 441, 443, 452, 507, 509, 531 [IMAGE AVAILABLE]
4. 5,691,297, Nov. 25, 1997, Process for making a high density detergent composition by controlling agglomeration within a dispersion index; David Robert Nassano, et al., 510/444; 264/117, 140; 510/441, 457, 507, 509, 511 [IMAGE AVAILABLE]
5. 5,565,137, Oct. 15, 1996, Process for making a high density detergent composition from starting detergent ingredients; **Scott W. Capeci**, 510/276; 252/383; 510/323, 336, 351 [IMAGE AVAILABLE]
6. 5,554,587, Sep. 10, 1996, Process for making high density detergent composition using conditioned air; **Scott W. Capeci**, 510/444; 23/313R; 264/117, 140; 510/446 [IMAGE AVAILABLE]
7. 5,516,448, May 14, 1996, Process for making a high density detergent composition which includes selected recycle streams for improved agglomerate; **Scott W. Capeci**, et al., 510/441; 264/117, 140; 510/323, 349, 392, 442, 444 [IMAGE AVAILABLE]
8. 5,496,487, Mar. 5, 1996, Agglomeration process for making a detergent composition utilizing existing spray drying towers for conditioning detergent agglomerates; **Scott W. Capeci**, et al., 510/444, 323, 349, 352 [IMAGE AVAILABLE]
9. 5,489,392, Feb. 6, 1996, Process for making a high density detergent composition in a single mixer/densifier with selected recycle streams for improved agglomerate properties; **Scott W. Capeci**, et al., 510/441; 264/117, 140; 510/323, 352, 444 [IMAGE AVAILABLE]
10. 5,486,303, Jan. 23, 1996, Process for making high density detergent agglomerates using an anhydrous powder additive; **Scott W. Capeci**, et al., 510/444; 264/117, 140; 510/348, 349, 352 [IMAGE AVAILABLE]
11. 5,431,857, Jul. 11, 1995, Process for producing a high density detergent composition having improved solubility by agglomeration of anionic surfactants and an agglomerating agent; **Scott W. Capeci**, 510/352, 444, 497, 498, 506 [IMAGE AVAILABLE]
12. 5,366,652, Nov. 22, 1994, Process for making high density detergent agglomerates using an anhydrous powder additive; **Scott W. Capeci**, et al., 510/444, 108, 348, 352, 361 [IMAGE AVAILABLE]

=> d 1-2 11

1. 5,733,865, Mar. 31, 1998, Processes for making a crystalline builder having improved performance; Eugene Joseph Pancheri, et al., 510/531; 423/155, 179, 637, 641; 510/457, 509 [IMAGE AVAILABLE]

2. 4,722,398, Feb. 2, 1988, Retarding deposition of paraffin from crude oil or natural gas with alkaline liquids; David S. Bohlen, et al., 166/304; 134/22.13, 29; 507/90, 277, 931 [IMAGE AVAILABLE]

L4

3 SURFACTANT (W) PASTE# (P) ELEVATED (W) TEMPERATURE

=> d 1-3 14

1. 5,858,961, Jan. 12, 1999, Process for the production of light-colored surfactants; Manfred Weuthen, 510/535, 470, 495, 536, 537 [IMAGE AVAILABLE]
2. 5,597,794, Jan. 28, 1997, Process for the production of detergent surfactant granules comprising a recycle step; Volker Bauer, et al., 510/457, 349, 357, 359, 361, 470, 476, 495, 507, 509, 511, 536 [IMAGE AVAILABLE]
3. 5,397,507, Mar. 14, 1995, Process for the production of washing- and cleaning-active granules; Volker Bauer, et al., 510/536, 357, 444, 457, 470, 497, 507, 535 [IMAGE AVAILABLE]

=> d 1-13 19

1. 5,856,294, Jan. 5, 1999, Production of anionic detergent particles; William Derek Emery, 510/456, 357, **444** [IMAGE AVAILABLE]
2. 5,795,856, Aug. 18, 1998, Method for producing detergent particles having high bulk density; Koichi Hatano, et al., **510/444**; 264/117, 140 [IMAGE AVAILABLE]
3. 5,733,862, Mar. 31, 1998, Process for making a high density detergent composition from a surfactant paste containing a non-aqueous binder; Scott William Capeci, et al., **510/444**; 23/313R; 264/117, 140; 510/360, 441, 507, 509 [IMAGE AVAILABLE]
4. 5,691,297, Nov. 25, 1997, Process for making a high density detergent composition by controlling agglomeration within a dispersion index; David Robert Nassano, et al., **510/444**; 264/117, 140; 510/441, 457, 507, 509, 511 [IMAGE AVAILABLE]
5. 5,668,099, Sep. 16, 1997, Process for making a low density detergent composition by agglomeration with an inorganic double salt; Benjamin Edgar Chapman, et al., **510/444**; 264/117, 140; 510/443, 452, 509 [IMAGE AVAILABLE]
6. 5,665,692, Sep. 9, 1997, Process for producing detergent agglomerates in which particle size is controlled; George John Kaminsky, **510/444**; 23/313R; 264/117, 140; 510/446, 475, 498, 507, 509 [IMAGE AVAILABLE]
7. 5,665,691, Sep. 9, 1997, Process for making a low density detergent composition by agglomeration with a hydrated salt; Paul Amatt France, et al., **510/444**, 465, 507, 509, 510 [IMAGE AVAILABLE]
8. 5,663,136, Sep. 2, 1997, Process for making compact detergent compositions; Paul Van Dijk, et al., **510/444**, 108, 345, 467, 495, 507, 509, 511, 512 [IMAGE AVAILABLE]
9. 5,574,005, Nov. 12, 1996, Process for producing detergent agglomerates from high active surfactant pastes having non-linear viscoelastic properties; Robert G. Welch, et al., **510/444**; 23/313R; 264/117, 140; 510/446, 509, 511 [IMAGE AVAILABLE]
10. 5,569,645, Oct. 29, 1996, Low dosage detergent composition containing optimum proportions of agglomerates and spray dried granules for improved flow properties; Alan R. Dinniwell, et al., 510/276; 8/137; 510/299, 361, 443, **444**, 493, 498, 509, 511 [IMAGE AVAILABLE]
11. 5,554,587, Sep. 10, 1996, Process for making high density detergent composition using conditioned air; Scott W. Capeci, **510/444**; 23/313R; 264/117, 140; 510/446 [IMAGE AVAILABLE]
12. 5,494,599, Feb. 27, 1996, Agglomeration of high active pastes to form surfactant granules useful in detergent compositions; Lucas Goovaerts, et al., 510/443, 305, 326, 348, 349, **444** [IMAGE AVAILABLE]
13. 5,490,954, Feb. 13, 1996, Detergent composition or component containing anionic surfactant and process for its preparation; Frans A. van der Hoeven, et al., 510/536, 357, **444**, 532 [IMAGE AVAILABLE]